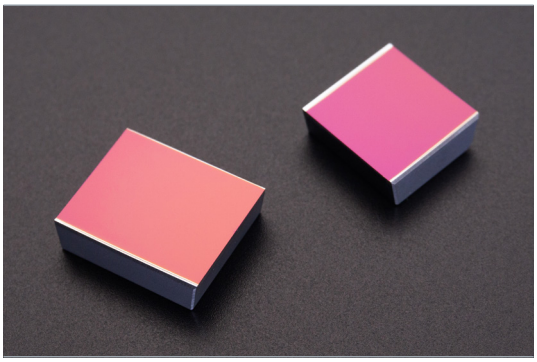
MATERION
// BALZERS OPTICS

Infrared CO_2 Laser Mirror

High Reflective Mirror for 10.2 µm & 10.6 µm (CO_2)

For high power CO_2 laser units, Materion Precision Optics produces high performance optical coatings in the spectral range of 10.2 µm – 10.6 µm. The dielectric coating achieves a particularly high reflection. Due to the excellent spectral properties, hardly any losses occur due to scattering and absorption. This guarantees not only a high laser damage threshold but also excellent environmental stability. Materion Precision Optics can therefore offer scanner mirrors that are suitable for the harsh operating conditions in industrial environments. Application areas for these coatings can include deflection units for beam guidance and highly reflective mirrors. Due to their light weight, they are well suited for high dynamic scanner applications.



Benefits

- High reflectivity
- High environmental stability
- High LiDT parameters
- Custome made mirror dimensions
- Coating on silicon and copper substrates

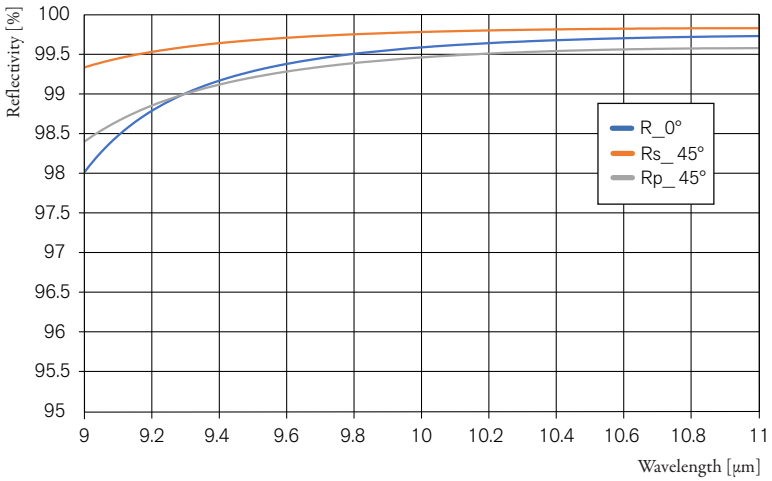
Applications

- High reflective CO_2 Laser Mirrors
- Laser Beams Steering Mirrors for beam delivery systems
- Laser Scanner Mirrors for marking and welding application

Technical Data

Reflectivity
- R > 99.7 % @ AOI 45° s-pol
- R > 99.4 % @ AOI 45° p-pol
- R > 99.6 % @ AOI 10° random-polarization
Figure: λ /10 @ 632.8 nm
Irregularity: λ/20 @ 632.8 nm
Scratch-Dig: 20/10
Damage threshold: 1MW/cm² (cw)

Design spectrum and measurement data



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